Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HUEY LY

Appeal No. 2004-1978
Application No. 09/510,747

ON BRIEF

Before THOMAS, LEVY, and BLANKENSHIP, Administrative Patent Judges.

LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-7 and 9-21, which are all of the claims pending in this application.

BACKGROUND

Appellant's invention relates to a deployed agent used in the installation and maintenance of software. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced as follows:

> 1. A method by which a managing computer manages applications residing on a managed computer, the method comprising the step of:
>
> (a) forwarding an agent from the managing computer to the managed computer, the agent, upon arriving at the managed computer, performing the following:
>
> (a.1) installing itself on the managed computer; and,
>
> (a.2) maintaining specified applications residing on the managed computer, including:
>
> making updates to the specified applications when new versions of the specified applications are available on the managing computer.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Dunn et al. (Dunn)	5,822,543	Oct. 13, 1998
Hodges et al. (Hodges)	6,035,423	Mar. 7, 2000 (filed Dec. 31, 1997)
Touboul	6,125,390	Sep. 26, 2000 (eff. filed Apr. 5, 1994)

Claims 1-7 and 9-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Touboul in view of Hodges and Dunn.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellant regarding the above-noted rejection, we make reference to the examiner's answer (Paper No. 13, mailed February 10, 2004) for the examiner's complete reasoning in support of the rejection, and to appellant's brief (Paper No. 12, filed December 5, 2003) and reply brief (Paper No. 14, filed April 12, 2004) for appellant's arguments thereagainst. Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered.

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejection advanced by the examiner, and the evidence of obviousness relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

Upon consideration of the record before us, we affirm-in-part. We begin with claim 1. In rejecting claims under 35

U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of

the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

The examiner's position (final rejection, pages 2 and 3) is that Touboul does not teach "*the agent upon arriving on the managed computer maintaining specified applications residing on the managed computer including making updates to the specified applications when new versions of the specified applications are available on the managing computer.*" To overcome this deficiency of Touboul, the examiner turns to Hodges for a teaching that it was known to maintain software and make updates as necessary. The examiner's reasoning is that the modification would have been obvious because "one of ordinary skill in the art would be motivated to shift useful functionality to an automated agent in order to decrease burden on the network administration." The examiner explains (answer, page 5) that "*one would be motivated to outsource a function or task from a central site to a remote/assisting site in order to delegate operations or more evenly distribute operations.*" The examiner cites three definitions of the term agent (answer, page 6) and asserts (id.) that "[a]s can be seen from the cited definitions, the use of the

term agent is a management unit offloading work onto to a helper unit (the agent). Particularly, **Microsoft** defines the agent as performing *background tasks* or in other words work with which the user doesn't wish to be bothered."

The examiner further asserts (final rejection, page 3) that "[n]either Touboul nor Hodges explicitly stated *forwarding an agent from the managing computer to the managed computer or the agent upon arriving on the managed computer installing itself on the managed computer.*" To overcome this deficiency of Touboul and Hodges, the examiner turns to Dunn for a disclosure that it was known for code to be embodied with the ability to self install, and for this code to come from a central location. The motivation provided by the examiner (final rejection, page 3) is that "one of ordinary skill in the art would be motivated to make use of software, which is self-contained and self-reliant."

Appellant asserts (brief, page 5) that there is no suggestion or motivation, in the references or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings as suggested by the examiner. Appellant further asserts (id.) that the examiner has failed to show that the prior art references teach or suggest all of the claim limitations.

With regard to the examiner's assertion that an artisan would have been motivated to shift useful functionality to an automated agent in order to decrease burden on the network administration, appellant asserts (brief, pages 8 and 9) that neither Touboul nor Hodges teach that it would have been desirable to shift functionality to an automated agent in order to decrease burden on the network administration. Nor do the references teach that there is any need to decrease burden on the network administration. In addition, appellant asserts (id.) that neither reference teaches that if there were a burden on the network administration, that the way to alleviate the burden would be to shift the useful functionality to an automated agent. Appellant argues that this information is available only from a reading of appellant's disclosure.

From our review of Touboul and Hodges, we agree with appellant that there is no disclosure in the prior art of any problem related to burden on the network administration, or that burden on the network administration can be alleviated by shifting functionality from a network to an automated agent. Although we find from the disclosure of Touboul a teaching of monitoring and controlling a network by using agents, we find no disclosure of agents making updates to specified applications

when new versions of the applications become available on the managing computer. However, from the disclosure of Touboul (col. 4, lines 16-19) that "[t]he system according to the present invention allow the administrator to schedule procedures which automatically initiate housekeeping tasks required to ensure that programs continuously run smoothly," we find a suggestion of updating applications as new versions become available. From the disclosure of Hodges (col. 5, lines 28-32) that "[t]he central antivirus server additionally transmits instructions to the local area network antivirus server sufficient to allow automatic downloading and installing of the antivirus updates onto the appropriate local client computer with minimized intervention from a system administrator," we find that the teachings of Hodges, taken with the teachings of Touboul, would have suggested to an artisan to provide software updates as taught by Hodges, i.e., automatic updates to the client computer with minimized intervention from a system administrator. From the examiner's definition of agent[1] as a program that performs a background task for a user and reports to the user when the task is done, the disclosure of Hodges that the download to the client computer is automatic and with minimal intervention from a system

[1] Microsoft Computer Dictionary, third Edition, page 19.

administrator, and Touboul's disclosure (col. 1, line 66 through col. 2, line 2) that problems occurring on workstations are corrected by sending procedures to agents active on the workstations, we find that the teachings of Touboul and Hodges suggest using agents in the automatic downloading of software updates. Thus, although we do not specifically agree with the examiner's reasoning for combining the teachings of Touboul with Hodges, we find that an artisan would have been motivated to provide software updates to the applications of Touboul in view of the combined teachings of Touboul and Hodges. We observe that appellant presents no arguments, in either the brief or reply brief, to the effect that the downloading of software updates in Hodges does not use agents. Arguments not made are considered to be waived. Accordingly, we are not persuaded by appellant's assertion (reply brief, page 4) that "[w]hile Appellant recognizes that agents can be and have been used to offload work, this general understanding of the functionality of an agent is not sufficient to provide a motivation for combining the teaching of Touboul and Hodges."

Appellant further asserts (brief, page 9) that it would not have been obvious to combine the teachings of Touboul and Dunn. It is argued (id.) that the examiner's stated rationale for

combination of the references would have the effect of destroying the invention on which Touboul is based, because (brief, page 10) Touboul states that it is an object of the invention to provide a system which allows automatic discovery of agents. Modifying Touboul to provide self-installation of agents would effectively destroy the basis for automatic discovery of agents, because this would result in new agents being sent to the managed workstation rather than existing agents being discovered on the managed workstation.

The examiner responds (answer, page 7) that the objective of providing self discovery of agents has no bearing on providing a system which can install agents, because the two are not opposite, as appellant contends. According to the examiner (answer, page 8), a system can exist, which can both discover existing agents on remote computers, and install new agents on the same computers.

From our review of Touboul, we find in the description of figure 6 (col. 16, lines 1-65) a routine for performing the initial phases of the generic agent program. The routine is executed whenever the agent is started on the workstation. First, a generic agent is loaded as a TSR program. At step 102, the initialization has begun. The routine checks whether the agent

is loaded. The programs are automatically installed on the file server through a login script. For NOVELL™ networks, there is no need to install the programs on the workstations. When a user logs in, the programs are automatically downloaded onto the workstation. The installation program includes a "load tsr" module which is executed in the login script. If the initialization step 102 is successful, the connection to the manager is started at step 104. The agent waits for a response from the manager and then loads the event table setup and agent parameters. In addition, (col. 15, lines 9-11), user database 74 stores setup information regarding the agents. The event table setup and agent parameters are downloaded from user database 74 to the memory agent database 30. The agent parameters include status and control information about the agent. From this disclosure of Touboul, we agree with appellant (reply brief, page 5) that a generic agent is loaded as a TSR program. The generic agent then establishes connection with the manager and eventually installs the agent. While Touboul performs installation of an agent, there is no disclosure of the agent installing itself on the workstation.

Turning to Dunn, we find that Dunn is directed to enabling a server to gather time statistics pertaining to the time taken for

data to reach a client station, as well as other pertinent time statistics (col. 4, lines 7-9). Dunn further discloses that a timing script could be provided, along with an applet (mini-application) that self installs at the client station, and executes automatically (col. 8, lines 42-45). From the disclosure of Dunn, we find that Dunn teaches that a mini-application can be downloaded to a client station, where it self installs and executes automatically. We are in agreement with the examiner (final rejection, page 3) to the extent that, in general, an artisan would have been motivated to make use of software which is self-contained and self-reliant. However, the issue is whether it would have been obvious to have the agents self-install on the workstation of Touboul. Even if we agreed with the examiner that a system can exist, which can both discover existing agents on remote computers, and install new agents on the same computer or even other computers, this is not a teaching to make the agents of Touboul self-installing. From the disclosure of Touboul (col. 15, lines 53-57) we find that agent monitoring module 80 works in conjunction with the autodiscovery module 38 to detect users signing onto the network and maintains information (for the manager 4) about active agents and also identifies undefined active agents (autodiscovery).

From this disclosure of autodiscovery of undefined agents in Touboul, we find no reason that would have motivated an artisan to make agents self-installing in Touboul. The fact that a modification could be made is not a reason to make the modification, in the absence of any teaching or suggestion in the prior art. The mere fact that the prior art could be modified in the manner suggested by the Examiner does not make such a modification obvious unless the prior art suggested the desirability of the modification. See In re Gordon, 773 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

We are not persuaded by the examiner's assertion (answer, page 8) that because Touboul teaches installing agents, and Dunn "further illuminates that which can substantially be implemented with **Touboul** alone," that the combination couldn't possible destroy Touboul. The issue is not whether the combination would destroy Touboul, but rather whether there is any suggestion to provide self-installing agents in Touboul. We find that the fact that the agents are installed in Touboul, as set forth in the routine disclosed in figure 6 and col. 16, lines 1-65, and the teaching of Dunn of having self-installing and self executing mini-applications does not provide a suggestion of self-installing the agents of Touboul, absent the teachings of

appellant's disclosure. It is argued (brief, page 13) that the combination has been concocted from impermissible hindsight derived only from Appellant's disclosure.

The Examiner responds (answer, page 8) that any judgment on obviousness is in a sense based on hindsight reasoning, but that this is not improper so long as it does not rely on knowledge gleaned only from Appellant's disclosures, citing In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Arguments about hindsight are not answered simply by citing McLaughlin. Because we find no motivation for the combination of Touboul and Dunn in the references themselves, and because the Examiner has not established motivation in the knowledge of one of ordinary skill in the art, we conclude that the combination, as stated, is based on impermissible hindsight. The examiner can not use appellant's invention as a template from which to construct the invention. "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." Para-Ordnance Mfg. v. SGS Importers Int'l, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995)(citing W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983)). "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior

art so that the claimed invention is rendered obvious." In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992)(citing In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991)). From all of the above, we find that the examiner has failed to establish a prima facie case of obviousness of claim 1. Accordingly, the rejection of claim 1 under 35 U.S.C. § 103(a), and claims 2-7, 9 and 10 dependent therefrom, is reversed.

We turn next to independent claim 11. Claim 11, unlike claim 1, does not recite that the agent is forwarded from the managing computer to the managed computer. Nor does claim 11 recite that the agent, upon arriving at the managed computer, self-installs on the managed computer. We make reference to our findings, supra, with respect to claim 1 as to the teachings and suggestions of Touboul and Hodges. Appellant does not argue the claim limitation regarding the action sensor. Rather, appellant argues that the prior art does not suggest the claimed integrity sensor, nor the claimed main engine.

Appellant asserts (brief, page 14) that the integrity sensor monitors integrity of specified applications within the managed computer to ascertain when repair is needed. Appellant acknowledges (id.) that Touboul discusses an administrator attaching one or more triggers to cause an action to be taken,

but that nothing in Touboul discloses or suggests that an agent includes an integrity sensor that ascertains when repair is needed. It is further argued (brief, page 15) that the references do not suggest a main engine within an agent that updates applications when new versions of the application is available on the managing computer.

At the outset,we find that it would have been obvious from the teachings and suggestions of Touboul and Hodges for the agent of Touboul to make updates to applications when new versions of the applications are available on the managing computer. From the disclosure of Touboul (col. 4, lines 6 and 7), we find that the system detects, reports, corrects, and prevents end-user program errors. The system includes an agent resident on the workstation. The agent actively monitors interaction between the users, applications and software, providing the network administrator with real-time detection of problems (col. 4, lines 31-35). The agent transmits an alert containing comprehensive, detailed information about each event as it occurs, allowing the network administrator to focus and address printing errors, security violations, and other program errors critical directly to the network administrator (col. 4, lines 49-54). The system analyzes the existing alerts to determine the appropriate corrective procedure for each event (col. 5, lines 7-9). The agent 14 may be a generic agent, capable of handling errors from

many different programs, or a specific agent, designed to address errors occurring in a specific program (col. 6, lines 57-60). Touboul further discloses (col. 7, lines 39-44) that "[t]he agent 14 monitors the applications and the operating system and when an interrupt is generated, hooks or traps that interrupt and determines if there is an error condition. If so, the error is recorded as an alert which is reported to the monitor 2." Monitor 2 logs and reports all alerts coming from the agents, and manager 4 monitors and controls the operation of the agents (col. 8, lines 10-12).

From the above portions of Touboul, we find that Touboul discloses monitoring the integrity of applications to ascertain when repair is needed. Although Touboul does not disclose the phrase "integrity sensor, "we find that in operation, the agents 14 monitor the integrity of the applications to determine when repair is needed, and therefore meet the claimed integrity sensor. In addition, from our findings, supra, with respect to claim 1 that the teachings of Touboul and Hodges suggests that the agent maintains the applications and makes updates when new versions of the applications are available, we find that even though Touboul does not disclose the phrase "main engine" that the agents of Touboul, as modified by Hodges, meets the claimed main engine clause of claim 11. From all of the above, we find that the teachings of Touboul and Hodges are sufficient to

establish a prima facie case of obviousness of claim 11. As we find that the limitations of claim 11 are met by Touboul and Hodges, we have not relied upon the teachings of Dunn in affirming the rejection of claim 11. Thus, we find Dunn to be cumulative to the teachings of Touboul and Hodges. Accordingly, the rejection of claim 11, and claims 12-16, dependent therefrom, is affirmed.

As claims 17-20 have not been specifically argued by appellant, and appellant states that claims 11-20 fall within a single group (brief, page 4), we find that claims 17-20 fall with claim 11. Accordingly, the rejection of claims 17-20 under 35 U.S.C. § 103(a) is affirmed.

We turn next to independent claim 21. We note at the outset that although claim 21 discloses that an agent is forwarded from the managing computer to the managed computer, the claim does not recite that the agent self-installs on the managed computer, as recited in claim 1. From the disclosure of Touboul (col. 16, lines 5 and 6) that the generic agent is loaded as a TSR program (Load Agent). The programs are automatically installed on the file server through the file server login script (col. 16, lines 12-14). When a user logs onto their workstation, the programs are automatically downloaded onto the workstation (col. 16, lines 16-19). The installation program includes a "load tsr" module (col. 16, lines 23-25) which is executed in the login script

(col. 16, line 25). From this disclosure of Touboul, we find that an agent is downloaded from the "load tsr" module in the login script. Thus, we find that Touboul meets the claim limitation that the agent is forwarded from the managing computer to the managed computer. In addition, from the disclosure of Touboul that the system sends procedures to agents active on the workstations, each procedure consisting of one or more actions to be taken (col. 1, line 66 through col. 2, line 3); the disclosure that the agents handle errors from many different programs (col. 6, lines 57-61); the disclosure that the agent checks the disks for bad sectors or spots (col. 10, lines 2 and 3); the disclosure that scheduling module 900 accesses the scheduled procedures to be sent to the agent by the manager 4 to be executed on the workstation at desired times (col.14, lines 13-17), we find that Touboul meets the claimed limitation that the agent maintains specified applications residing on the managed computer.

In addition, from the disclosure that the system sends to the agents procedures consisting of actions to be taken (col. 1, line 66 through col. 2, line 3) we find that Touboul meets the claimed limitation that the agent performs requests made by the managing computer. In addition, from our findings, supra, with respect to claim 1, we find that the teachings of Touboul and Hodges suggest that the agent makes updates to applications when

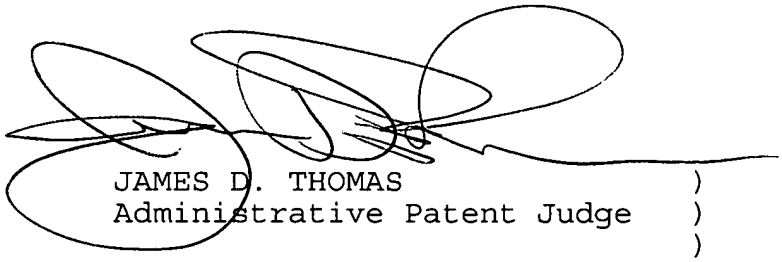
new versions of the applications are available on the managing computer. Appellant's arguments (brief, pages 16-19) are not persuasive as appellant repeats the arguments presented with respect to claim 1 as to why the teachings of Touboul and Hodges are not combinable. As with independent claim 11, we have not relied upon the teachings and suggestions of Dunn, and find that Touboul and Hodges suggests all of the limitations of claim 21. We therefore find the teachings of Dunn to be cumulative to the teachings of Touboul and Hodges. From all the above, the rejection of claim 21 under 35 U.S.C. § 103(a) is affirmed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-7, 9 and 10 under 35 U.S.C. § 103(a) is reversed. The decision of the examiner to reject claims 11-21 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136 (a).

AFFIRMED-IN-PART



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